

**AMENDMENTS TO THE CLAIMS**

Please amend claim 1, 6, 7, 9, 10, 25, 28 and 30 and cancel claims 4, 12, 14-24, 26, 31 and 34-36, as shown below. A complete listing of the claims, showing their current status, is provided below.

1. **(Currently amended)** A method of using an addressable array of biopolymers on a substrate, comprising:

- (a) receiving the addressable array and an associated machine readable identifier carried on an array substrate or array housing;
- (b) exposing the array to a sample;
- (c) reading the array;
- (d) machine reading the identifier as an identifier signal; and
- (e) retrieving biological function data for one or more of the biopolymers from a memory based on the identifier signal, wherein the retrieved biological function data comprises information on the function of a target of the array, or its complement, or the gene from which either originated;

**wherein the retrieval of the biological function data includes: communicating the identifier signal to a processor which retrieves data on the identity of the biopolymers based on the read identifier; and communicating the identity data on the biopolymers to a processor which retrieves the biological function data for one or more of the biopolymers from a memory based on the retrieved identity data.**

2. **(Original)** A method according to claim 1 wherein the biopolymers are polynucleotides.

3. **(Original)** A method according to claim 2 wherein the biopolymers are DNA.

4. **(Cancelled)**

5. **(Original)** A method according to claim 1 wherein the memory from which biological function data is retrieved is a portable storage medium received from a remote location.

6. **(Currently amended)** A method according to claim 1 additionally comprising either ~~controlling reading of the array or processing~~ associating information obtained from reading the array, in accordance with the retrieved biological function data.

7. **(Currently amended)** A method according to claim 4 **claim 1** wherein the processor which retrieves the biological function data and the memory from which the biological function data is retrieved, are remote from the location at which the array and identifier are read, and wherein the read identifier or identity data is communicated to the remote processor.

8. **(Original)** A method according to claim 5 wherein the machine readable identifier is read while the array is in a same apparatus which reads the array.

9. **(Currently amended)** A method of using an addressable array of biopolymers on a substrate, comprising:

(a) receiving the addressable array and an associated machine readable identifier carried on an array substrate or array housing;  
(b) exposing the array to a sample;  
(c) reading the array;  
(d) machine reading the identifier as an identifier signal; and  
(e) communicating with a remote station and retrieving therefrom biological function data for one or more of the biopolymers based on the identifier signal, wherein the retrieved biological function data comprises information on the function of a target of the array, or its complement, or the gene from which either originated.

wherein the retrieval of the biological function data includes: communicating the identifier signal to a processor which retrieves data on the identity of the biopolymers based on the read identifier; and communicating the identity data on the biopolymers to a processor which retrieves the biological function data for one or more of the biopolymers from a memory based on the retrieved identity data.

10. **(Currently amended)** A method according to claim 9 wherein the biological function data is retrieved by communicating to the remote station the identifier signal, or communicating to the remote station a biopolymer identity data obtained using the identifier signal, and receiving the biological function data in response.

11. **(Original)** A method according to claim 10 additionally comprising: obtaining a communication address of the remote station using the identifier signal; wherein the communication address is used to establish communication with the remote station.

12. **(Cancelled)**

13. **(Original)** A method according to claim 10 additionally comprising retrieving the biopolymer identity data from a memory carrying multiple identifiers in association with the biopolymer identity data, using the identifier signal, and wherein the biopolymer identity data is communicated to the remote station to retrieve the biological function data in response.

14-24 **(Cancelled)**

25. **(Currently amended)** An apparatus for using an addressable array of biopolymers on a substrate, comprising:

- (a) an array reader which reads the array following exposure to a sample;
- (b) a reader which reads an identifier carried on an array substrate or an array housing, as an identifier signal; and
- (c) a processor which retrieves biological function data for one or more of the biopolymers from a memory based on the read identifier signal, wherein the retrieved biological function data comprises information on the function of a target of the array, or its complement, or the gene from which either originated,

wherein the retrieval of the biological function data by the processor unit includes: retrieving data on the identity of the biopolymers based on the read identifier; and retrieving the biological function data for one or more of the

**biopolymers from a memory based on the retrieved identity data.**

**26. (Cancelled)**

**27. (Original)** An apparatus according to claim 25 additionally comprising a portable storage medium reader, and wherein the memory from which the processor retrieves the biological function data is a portable storage medium in the reader.

**28. (Currently amended)** An apparatus for using an addressable array of biopolymers on a substrate, comprising:

- (a) an array reader which reads the array following exposure to a sample;
- (b) a reader which reads an identifier carried on an array substrate or an array housing, as an identifier signal; and
- (c) a processor which retrieves biological function data for one or more of the biopolymers from a memory based on the read identifier signal,

wherein the processor ~~either controls reading of the array or processes~~ associates information obtained from reading the array, ~~in accordance~~ with the retrieved biological function data.

**29. (Original)** An apparatus according to claim 25 additionally comprises a communication module, and wherein the processor retrieves the biological function data from a remote memory by communicating the read identifier or identity data to a remote location and receiving in response the biological function data as a communication.

**30. (Currently amended)** An apparatus for using an addressable array of biopolymers on a substrate, comprising:

- (a) an array reader which reads the array following exposure to a sample;
- (b) a reader which reads an identifier carried on an array substrate or an array housing, as an identifier signal;
- (c) a communication module; and
- (d) a processor which: retrieves feature characteristic data for the array from a

memory based on the read identifier signal, and communicates feature characteristic data for the array to a remote location in association with an identification of the feature;

**wherein the feature characteristic data communicated to the remote location comprises an identification of the feature along with an indication of a suspected feature error.**

**31. (Cancelled)**

**32. (Original)** An apparatus according to claim 30 wherein the communicated feature identification includes the array identifier signal.

**33. (Original)** An apparatus according to claim 30 wherein the processor additionally obtains a communication address for the remote location using the identifier signal and communicates the feature characteristic data to the remote location using the communication address.

**34-36 (Cancelled)**

**37. (Previously presented)** A method according to claim 1 wherein the retrieved biological function data comprises information on the gene from which a target or its complement originated.

**38. (Previously presented)** A method according to claim 37 wherein the biopolymers are polynucleotides.

**39. (Previously presented)** A method according to claim 1 wherein the retrieved biological function data comprises information on the gene from which a target of the array, or its complement, originated.

**40. (Previously presented)** A method according to claim 30 wherein the feature characteristic data which the processor communicates to the remote location comprises an

indication of a suspected feature error.

41. **(Previously presented)** A method according to claim 40 wherein the indication of suspected error comprises an indication of one or more of an error in feature dimension, location, presence or amount of biopolymer present at a feature.

42. **(Previously presented)** A method according to claim 30 wherein the feature characteristic data which the processor communicates to the remote location comprises biological function data for one or more of the biopolymers.

43. **(Previously presented)** A method according to claim 42 wherein the biological function data comprises information on the function of a target of the array or its complement, or the gene from which either originated.

44. **(Previously presented)** A method according to claim 9 wherein the biopolymers are polynucleotides.

45. **(Previously presented)** A method according to claim 25 wherein the biopolymers are polynucleotides.